CHAPTER 5: SECOND PAPER FEED SECTION

CONTENTS

1. Theory of Operation
1. Second Paper Feed Drive Mechanism 1
2. Vertical Print Position 3

2. Removal and Assembly
1. Load Spring 5
2. Timing Cam 6
3. Sector Gear 7
4. Print Positioning Unit 8
5. Print Positioning Pulse Motor 9
6. Paper Guide Plate 10
7. Paper Sensor 12
8. Timing Roller 13

3. Adjustment
1. Timing Cam Mounting Position 15

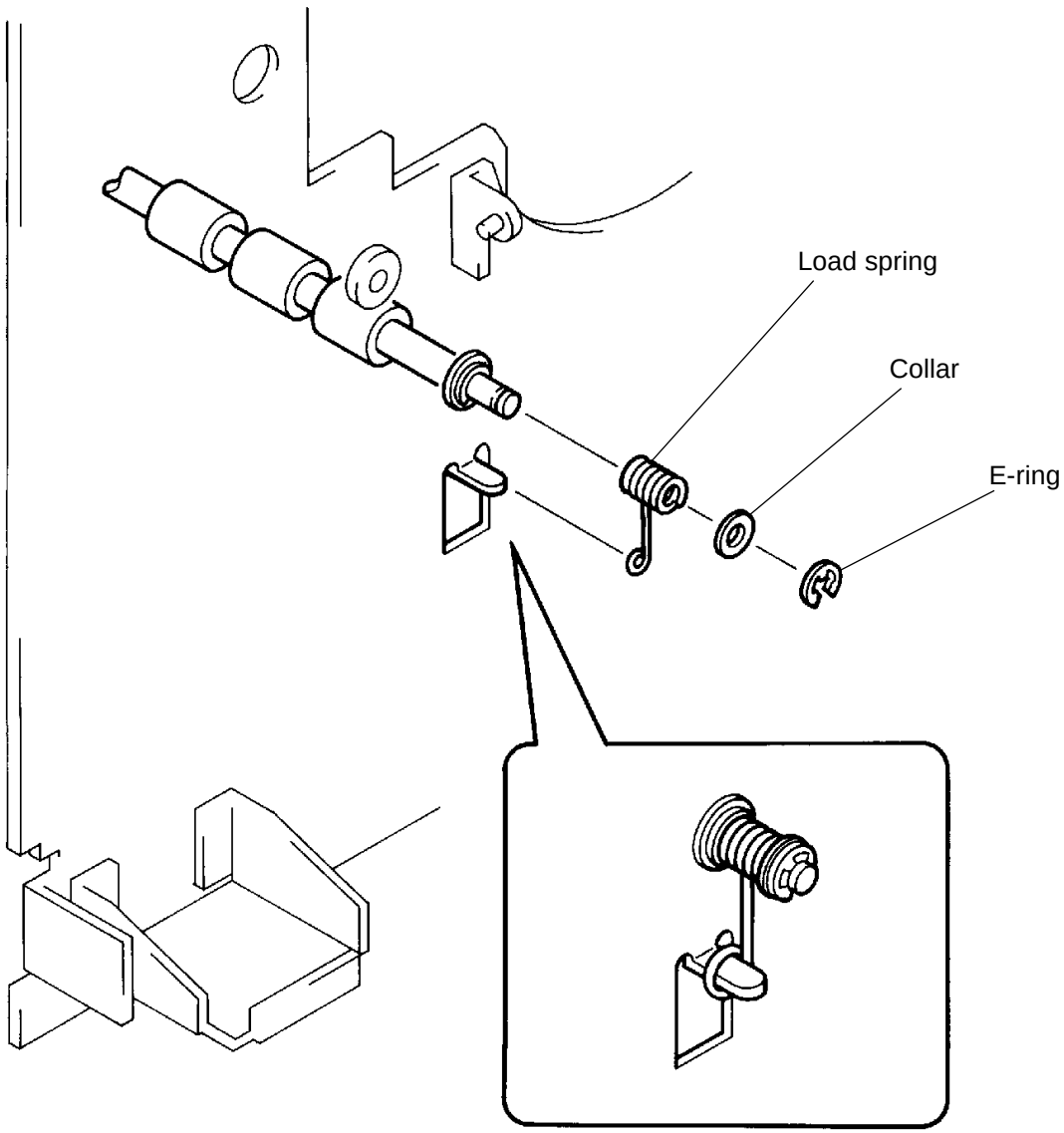
2. Removal and Assembly

1. Load Spring

1. Remove the Drum from the machine.
2. Disconnect the power supply from the machine.
3. Remove Front cover.
4. Remove E-ring and Collar from the Timing roller shaft.
6. Remove the Load spring from the shaft.

Precaution before Assembly

- Install the Load spring in the correct direction.

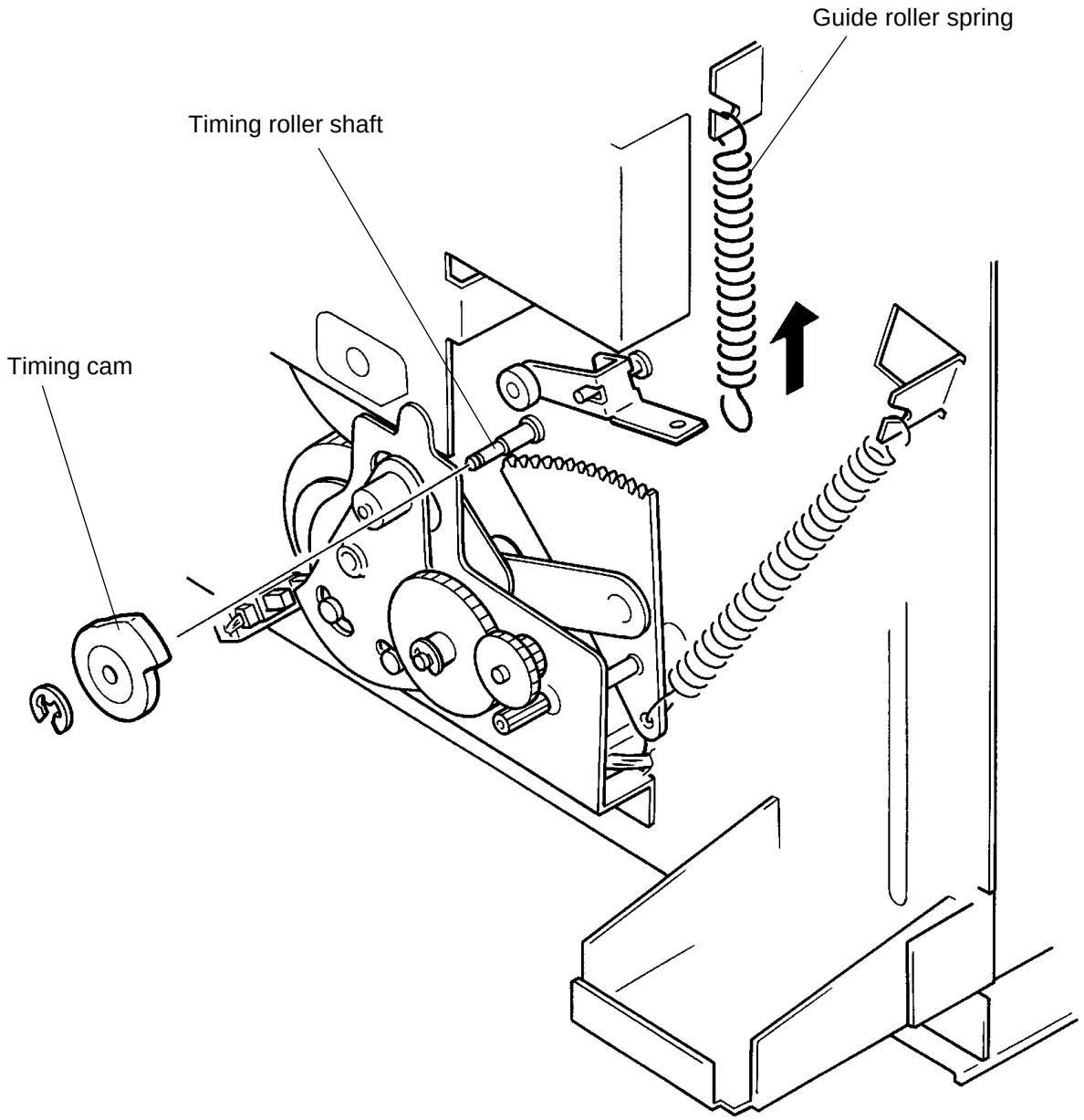


2. Timing Cam

1. Disconnect the power supply from the machine.
2. Remove Back cover.
3. Open the Main PCB bracket frame.
4. Remove the Guide roller spring.
5. Remove E-ring from the Timing roller shaft and remove the Timing cam.

Adjustment after Assembly

• Adjust the position of the Timing cam.

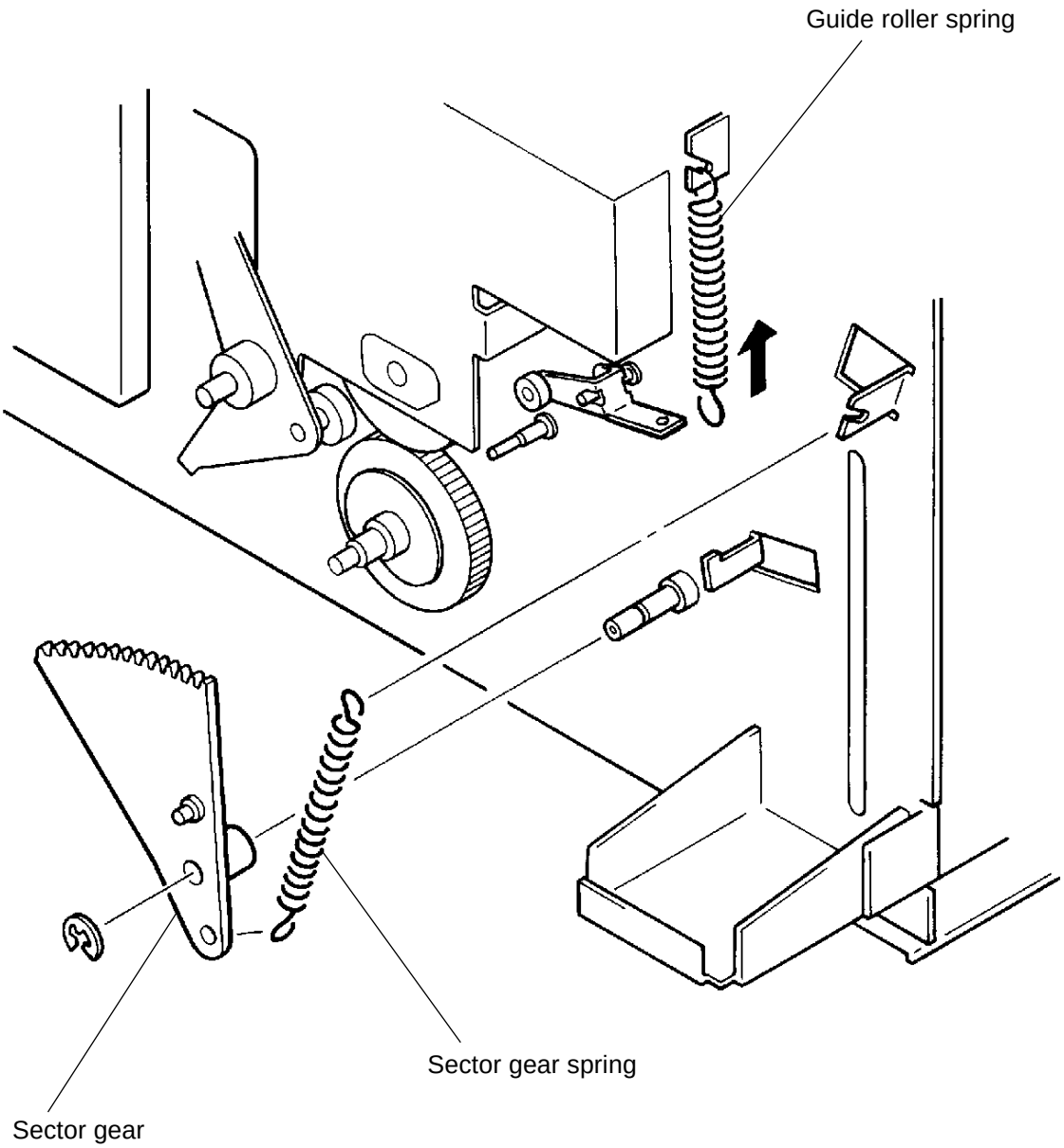


3. Sector Gear

1. Disconnect the power supply from the machine.
2. Remove Back cover.
3. Open the Main PCB bracket frame.
4. Remove following two parts from the machine.
   - Print positioning unit (page 5-8)
   - Timing cam (page 5-6)
5. Remove E-ring from the Sector gear shaft and remove the gear.

Adjustment after Assembly

- Adjust the position of the Timing cam. (page 5-15)

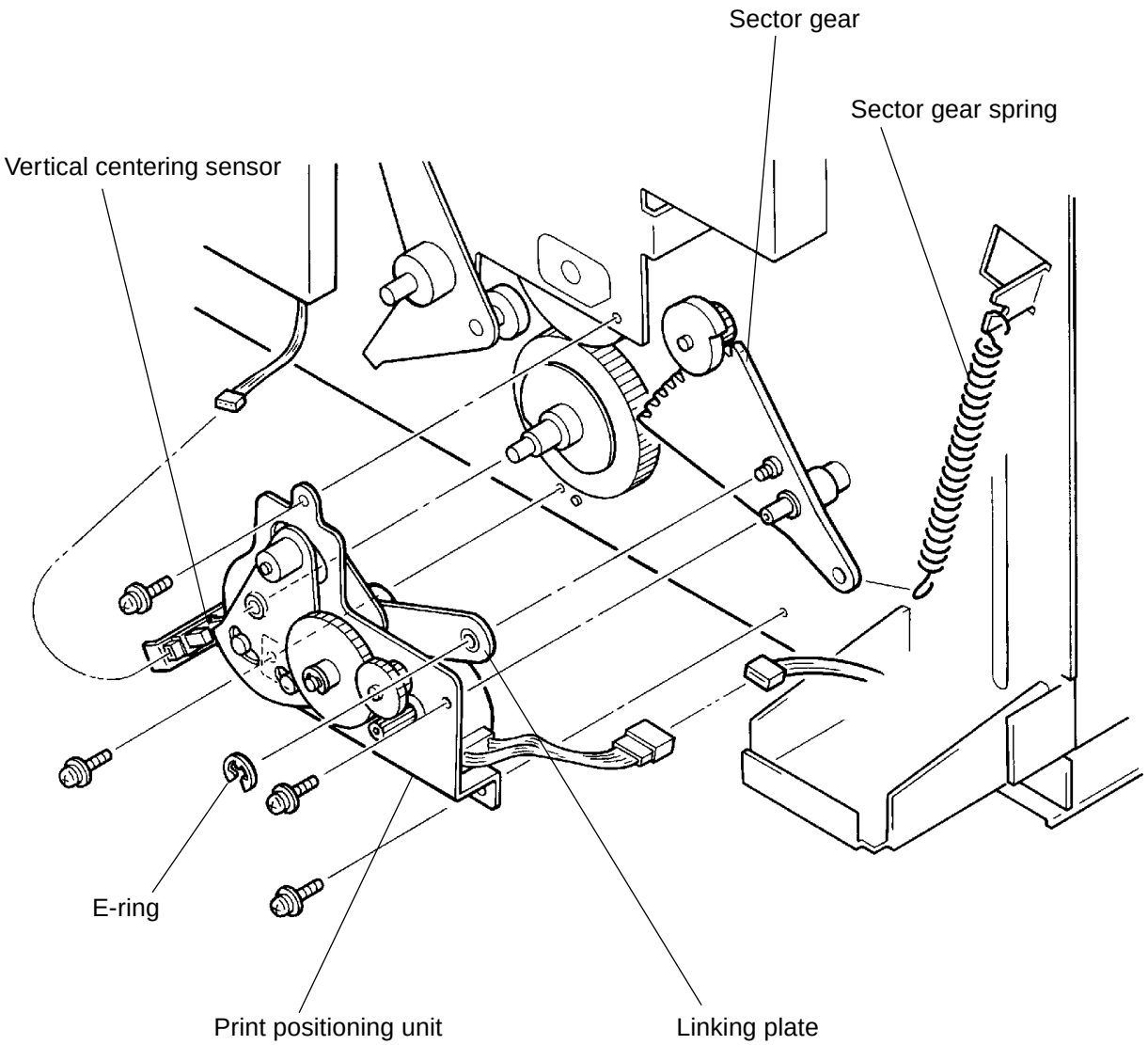


4. Print Positioning Unit

1. Disconnect the power supply from the machine.
2. Remove Back cover.
3. Open the Main PCB bracket frame.
4. Remove the Sector gear spring.
5. Disconnect the Connectors from following two electrical components.
   • Vertical centering sensor
   • Print positioning pulse motor
6. Remove E-ring from the Linking plate and remove the Linking plate.
7. Remove four mounting screws of the Print positioning unit and remove the unit.

Adjustment after Assembly

• Adjust the position of the Timing cam.

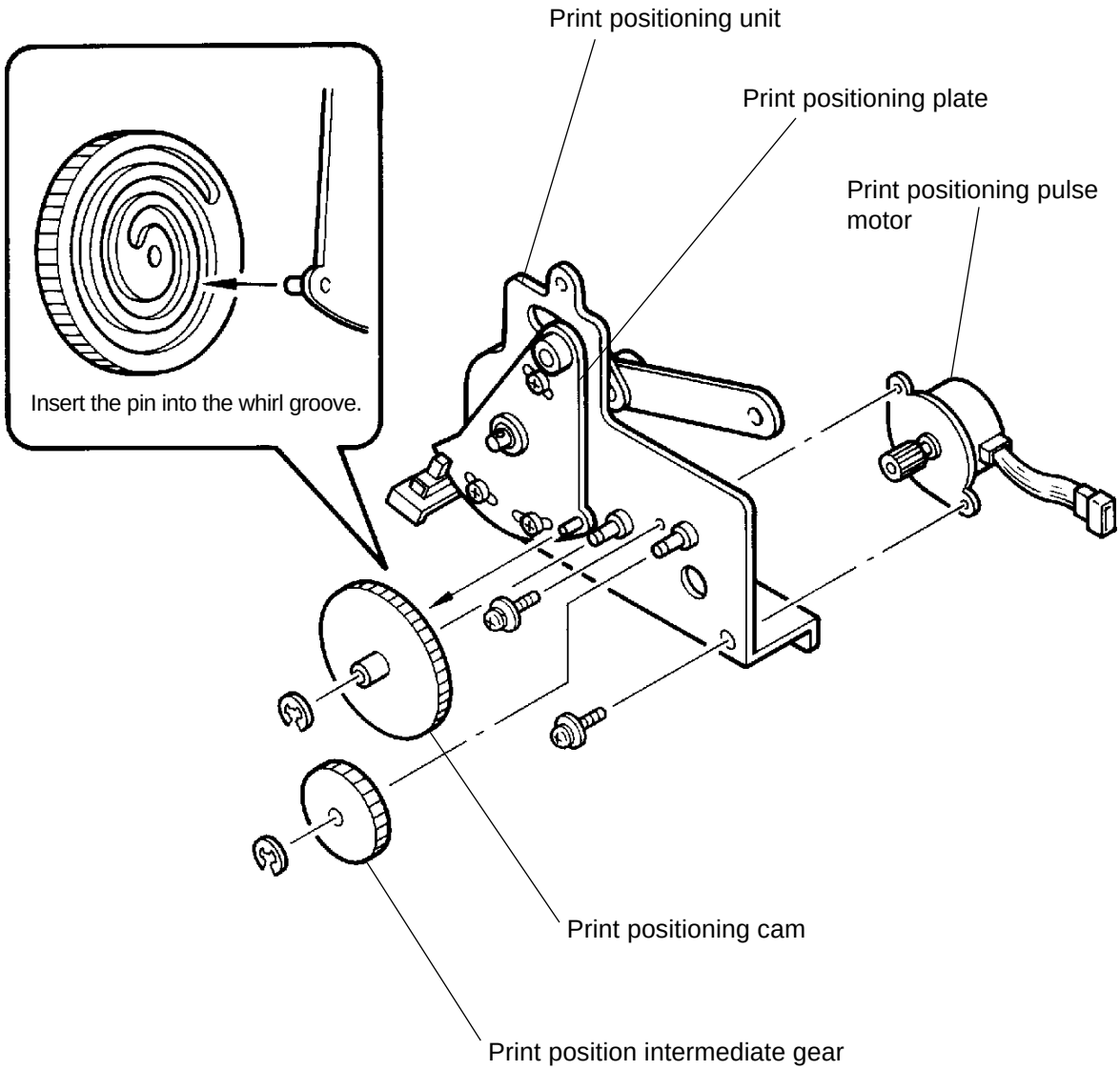


5. Print Positioning Pulse Motor

1. Disconnect the power supply from the machine.
2. Remove Back cover.
3. Open the Main PCB bracket frame.
4. Remove the Print positioning unit. (page 5-8)
5. Remove two E-rings from the Print positioning unit and remove the Print positioning cam and Print position intermediate gear.
6. Remove two mounting screws of the Print positioning motor and remove the motor.

Precautions before Assembly

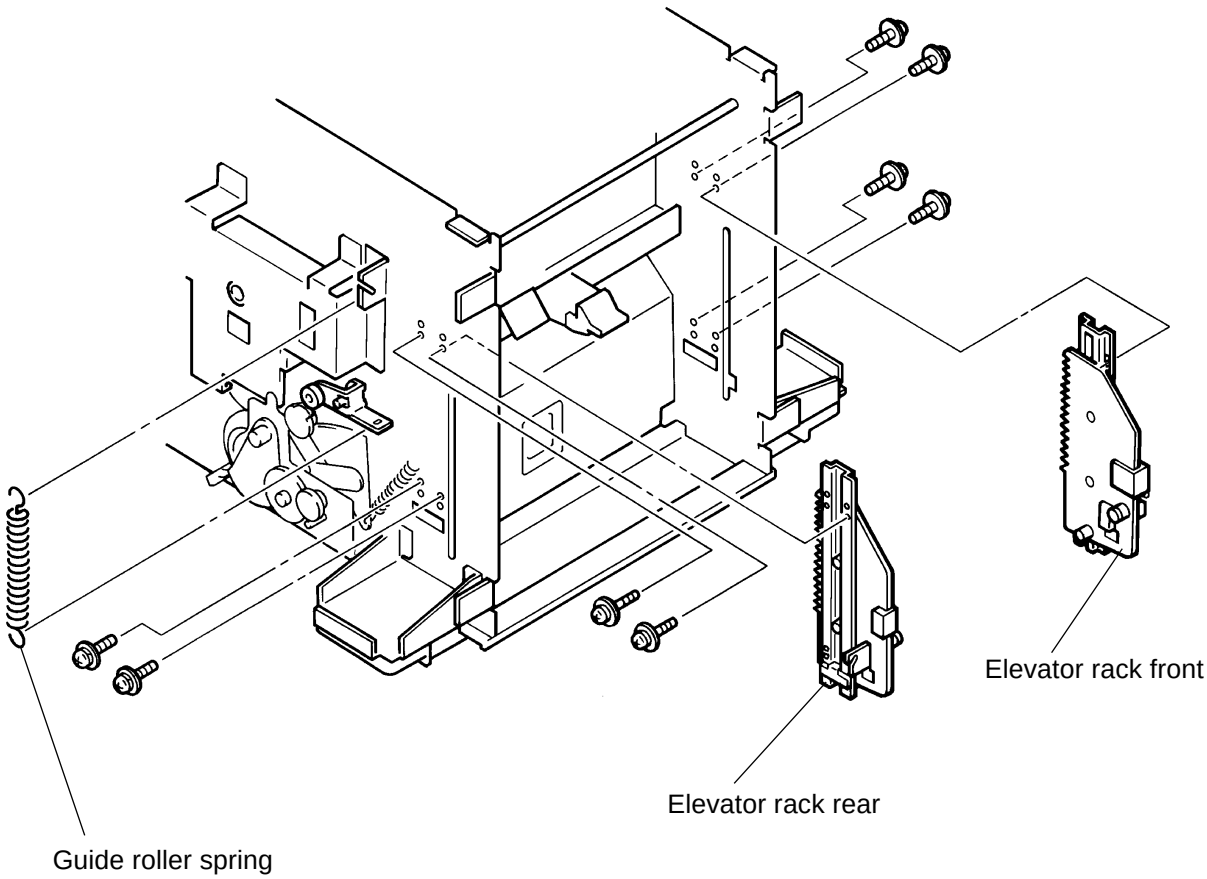
• Insert the pin on the Print positioning plate into the whirl groove of the Print positioning cam.


Print positioning unit
Print positioning plate
Print positioning pulse motor
Insert the pin into the whirl groove.
Print positioning cam
Print position intermediate gear

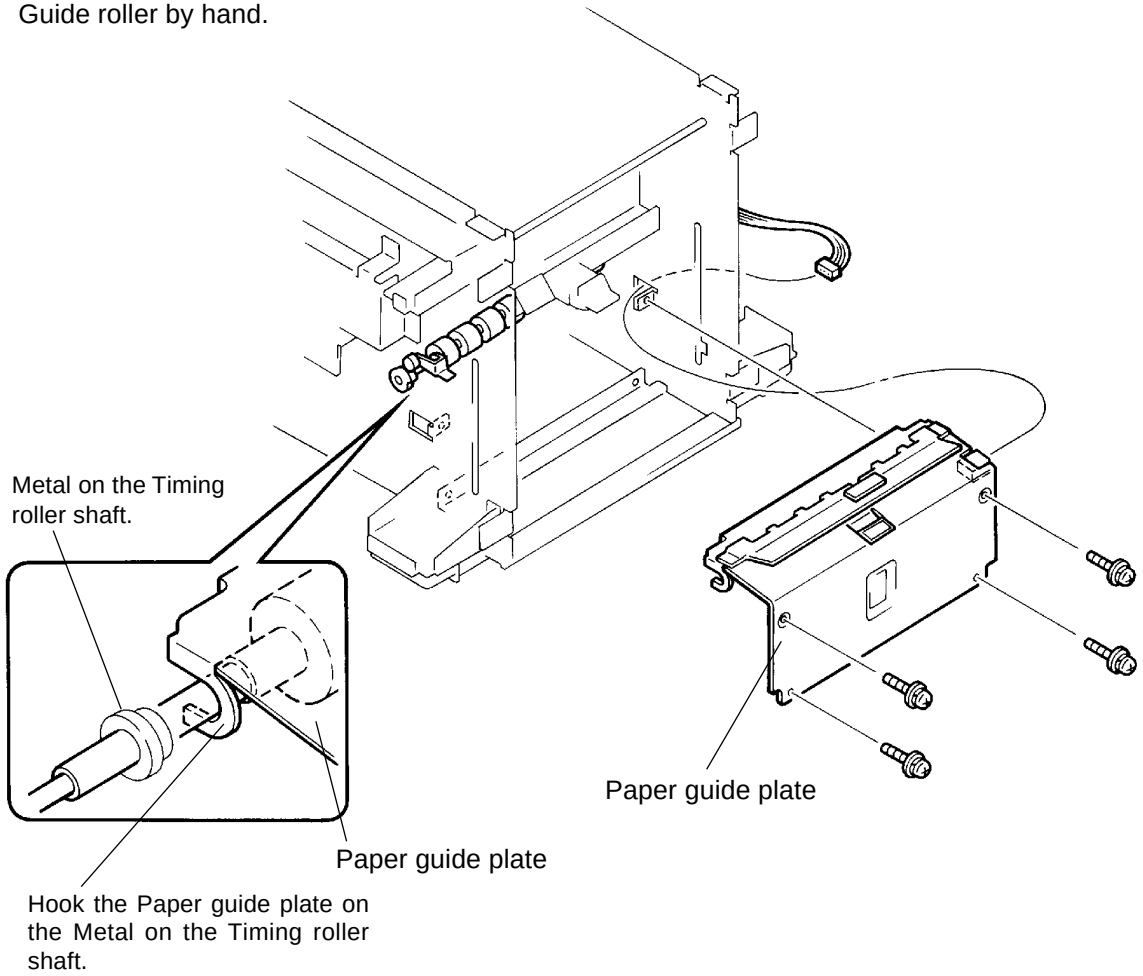
6. Paper Guide Plate

1. Remove the Drum from the machine.
2. Disconnect the power supply from the machine.
3. Remove following parts from the machine.
   - Back cover, Front cover, and Master removal lower cover
   - Paper feed tray unit (page 4-7)
   - Paper feed clutch (page 4-12)
   - Scraper ass'y (page 4-13)
   - Elevator motor unit
4. Remove four screws each from Elevator rack front and rear.
5. Remove the Guide roller spring.

(continues on page 5-11)

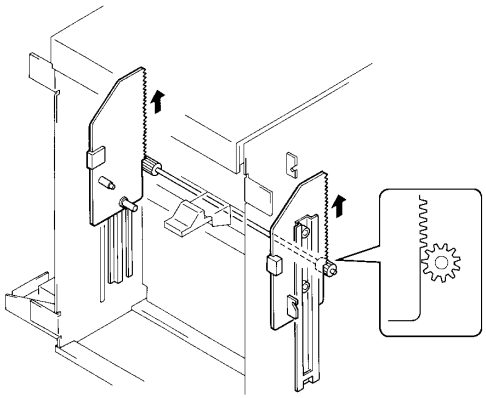


6. Remove the connector from the Paper guide plate.
7. Remove four mounting screws of the Paper guide plate and remove the plate while lifting the Guide roller by hand.


Metal on the Timing roller shaft.
Paper guide plate
Paper guide plate
Hook the Paper guide plate on the Metal on the Timing roller shaft.

Precautions before Assembly

- Hook the Paper guide plate on the Metal of the Timing roller shaft.
- Match the half-pierced sections when installing the Elevator rack front and rear.
- Match the height of the gears against the Elevator rack front and rear.



- Lift the Elevator racks Front and Rear all the way up to disengage the gears.
- Then match the height of the Front and Rear racks and let both slide down to keep the two level to each other.
- This must be done before attaching the Elevator motor unit.

Adjustment after Assembly

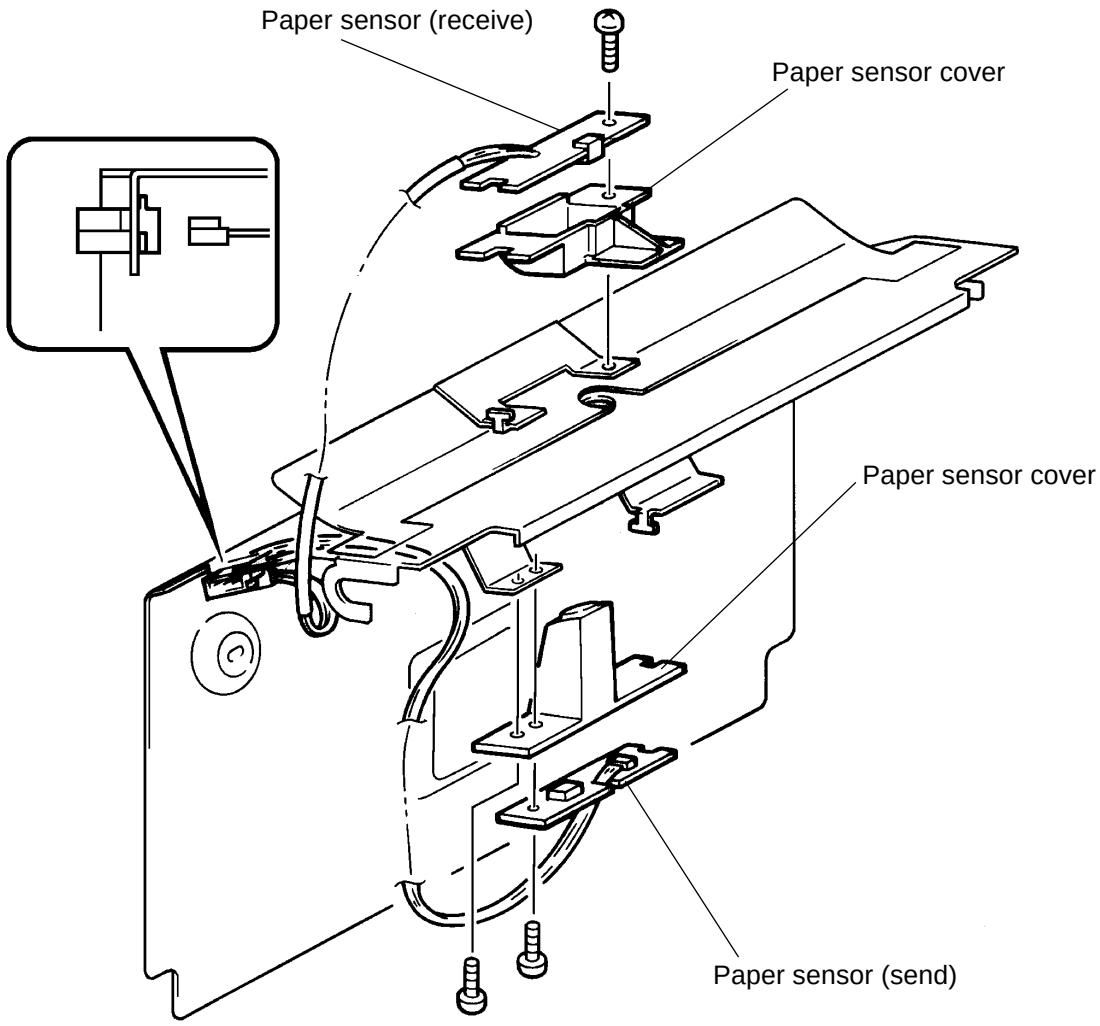
- Adjust the position of the Elevator upper limit sensor. (page 4-15)

7. Paper Sensor

1. Remove the Drum from the machine.
2. Disconnect the power supply from the machine.
3. Remove following parts from the machine.
   - Back cover, Front cover and Master removal lower cover
   - Paper feed tray unit (page 4-7)
   - Scraper ass'y (page 4-13)
   - Elevator motor unit (page 4-14)
   - Paper guide plate (page 5-10)
4. Disconnect the connector of the Paper sensor from the Paper guide plate.
5. Remove the mounting screws of both the Paper sensor (send) and (receive), and remove the sensors from the Paper guide plate.

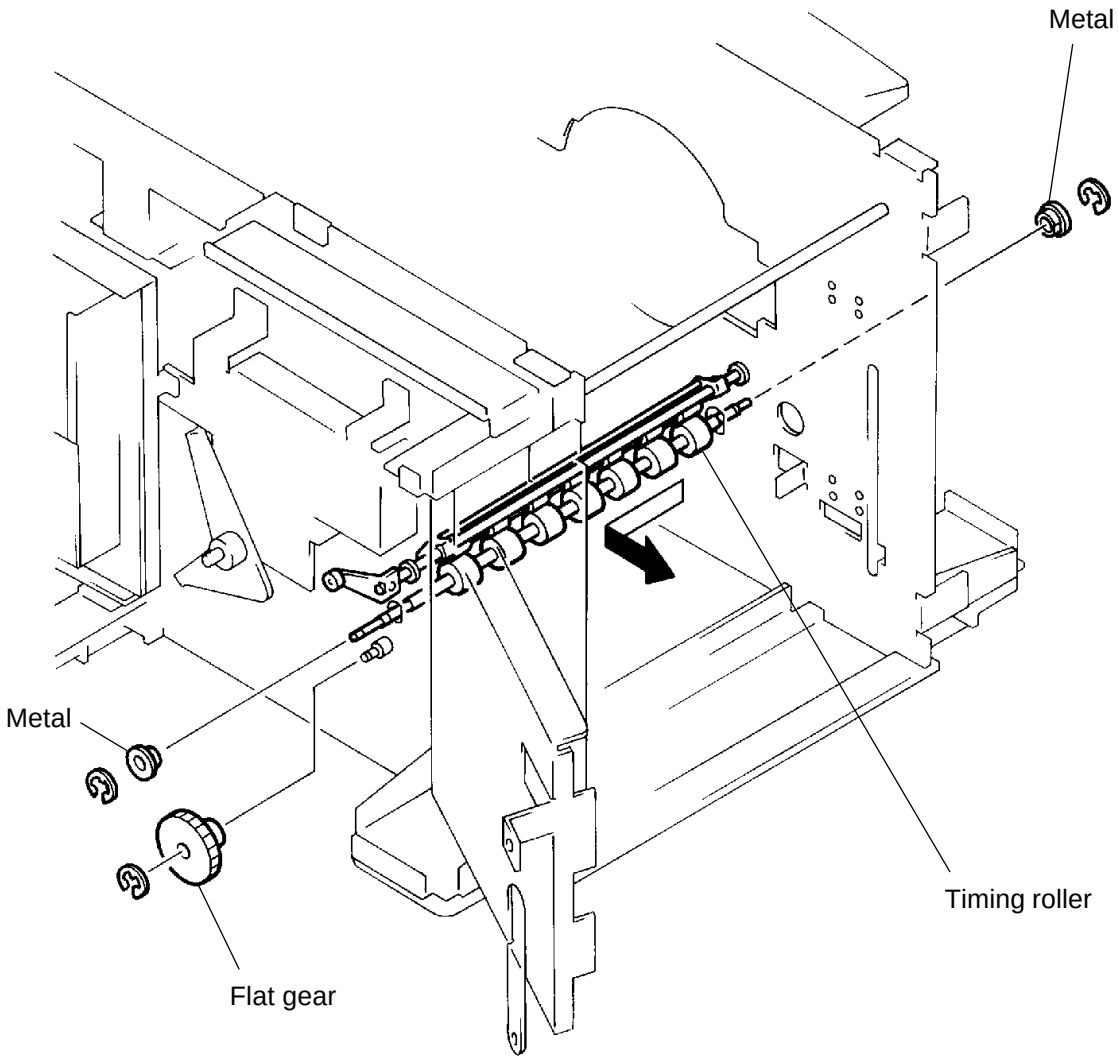
Precautions before Assembly

- Hook the Paper sensor (send) and (receive) on the Paper guide plate and then screwing them on.



8. Timing Roller

1. Remove the Drum from the machine.
2. Disconnect the power supply from the machine.
3. Remove following parts from the machine.
   - Back cover and Front cover
   - Load spring (page 5-5)
   - Timing cam (page 5-6)
   - Print positioning unit (page 5-8)
   - Paper guide plate (page 5-10)
4. Remove E-ring and slide out the Flat gear from the shaft.
5. Remove E-rings from both ends of the Timing roller shaft and remove the Metals.
6. Slide the Timing roller once to the drive side of the machine and then remove it out through the opening at the paper feed area.

Adjustment after Assembly

- Adjust the mounting position of the Timing cam. (page 5-15)